

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/051173 A2

(51) International Patent Classification⁷:

A61B

(21) International Application Number:

PCT/US2004/039326

(22) International Filing Date:

23 November 2004 (23.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/524,084 24 November 2003 (24.11.2003) US

(71) Applicant (for all designated States except US): BIOGEN IDEC MA INC. [US/US]; 14 Cambridge Center, Cambridge, MA 02142 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SINGH, Juswinder [GB/US]; 94 Heritage Avenue, Ashland, MA 01721 (US). VLIJMEN, Herman, Van [NL/US]; 56 Craigie Street, Somerville, MA 02143 (US). GUPTA, Abhas [US/US]; 108 Aaron Woods Court, Wheeling, WV 26003 (US).

(74) Agent: FOX, Harold, H.; Steptoe & Johnson LLP, 1330 Connecticut Avenue, NW, Washington, DC 20036-1795 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

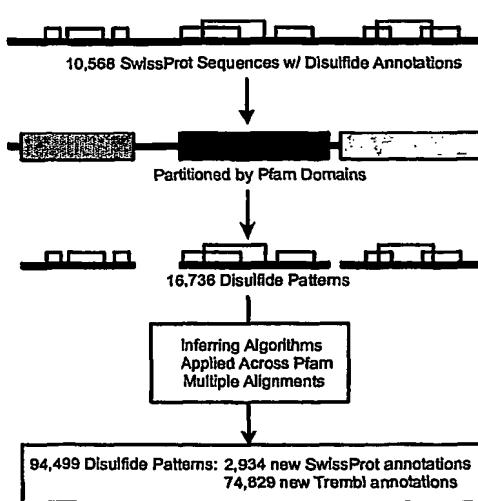
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DETECTING PROTEIN SIMILARITY



(57) Abstract: The disulfide bridges in a protein sequence can be described by a disulfide signature that includes information about cysteine spacing and disulfide topology. Proteins with similar disulfide signatures can be structurally similar despite low overall sequence homology. A database of disulfide signatures can be compiled from publicly available sequence data.